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Factors contributing to the High Drop out of Girls in the Secondary Schools around Lake Victoria: A Case Study of Nyangoma Division in Siaya County, Kenya

By

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Factors contributing to the High Drop out of Girls in the Secondary Schools around Lake Victoria: A Case Study of Nyangoma Division in Siaya County, Kenya

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ABSTRACT

This descriptive survey research study established the contribution of fishing around Lake Victoria on the high drop out of girls in the secondary schools of Nyangoma Division in Siaya County in Kenya. The participants involved in this study included Beach Management Units (BMUs) Officers; principals; teachers; plus form 3 and form 4 students drawn from 4 secondary schools in the Division. A total of 159 students that is, 108 boys and 51 girls as well as 16 teachers that is, 10 males and females participated in the study. Questionnaires, interview guide, and non-participant observations were the research instruments used to collect data. A documentary analysis of the records in the secondary schools selected for the study was used to supplement the data collected on the rate of drop out of girls. Descriptive survey research design was employed in the study. Data was analyzed both quantitatively and qualitatively. The results of this study showed that fishing contributed to the high drop out of girls who were involved in this activity. It was concluded that there was a significant relationship between fishing and drop out of girls in secondary schools in Nyangoma Division. This study recommends that the Government of Kenya through the Ministry of Education should organize workshops / insets for teachers teaching in lake regions to equip them with skills on guiding. This would enable them to counsel and advise the girls in their schools effectively. Further, the government and parents should provide for the basic needs of the girls in fishing regions like sanitary towels, better sanitation and clean water to enable them not to continue dropping out of secondary schools.

Key Words: fishing, school dropout, and child labour.

LIST OF ABBREVIATIONS / ACRONYMS

AIDS: Acquired Immune Deficiency Syndrome.
BILA: Bureau of International Labour Affairs.
BMU: Beach Management Unit.
CEDAW: Convention on the Elimination on All Forms of Discrimination against Women.
CSEC: Commercial Sexual Exploitation of Children.
DRC: Democratic Republic of Congo.
EFA: Education for All.
FAO: Food Agricultural Organization.
GER: Gross Enrollment Rate.
HIV: Human Immunodeficiency Virus.
ILO: International Labour Organization.
SDGs: Sustainable Development Goals.
MoE: Ministry of Education.
SPSS: Statistical Package for Social Sciences.
1. INTRODUCTION

1.1 Background of the Study

Article 26 of United Nation Charter on Universal Declaration of Human Rights says education is a human right (United Nations, 1948). The 5th Education for All (EFA) goal reiterates this fact by aiming at achieving gender equity in education and ensuring that girls access quality and equal basic education. That is why students’ enrollment has been raising worldwide with the gap between boys and girls closing as governments respond to key framework documents like the Sustainable Development Goals (SDGs) (Muganda & Omondi, 2008). For example, in Latin America and Caribbean, the gap between girls and boys has rapidly closed and their enrollment in schools is almost equal. In Kenya, introduction of Free Secondary Education in January 2008 with a grant of Kshs 10 265 per child raised the enrollment from 45.3% (49.0 for boys and 41.8 for girls) in 2009 to 48.8% (51.0 for boys and 46.8 for girls) in 2011. The enrollment rose from 1.18 million students (639 393 boys and 540 874 girls) in 2007 to 1.8 million (819 014 girls and 948706 boys) in 2011 (Republic of Kenya, 2012). However some African nations still record low participation of girls in schools. For instance there are wide gaps in Ethiopia with only 16% of girls enrolled in secondary school compared to 28% of boys (Murphy and Carr, 2007).

Fishing is the main economic activity in fishing regions worldwide. However, these regions are among the areas that record low participation in education. For example, boys in fishing regions in Asia drop out of school to join fishing sector (Vimala, 2010). In Ghana, fishing contributes to 2.5% of child labour (Vegard, 2006). In Zambia, 300,000 people are employed in fishing sector but most of them die due to AIDS leaving behind many orphans (Musumali & Wishart, 2009). Fishers are exposed to challenges like HIV and alcoholism since they easily access cash, making them not to educate their children more so their daughters (FAO, 2005). The orphans, mostly girls end up leaving school. Poverty makes many girls in Batwa community living around Lake Kivu and Idjwi Island in the Democratic Republic of Congo (DRC) to leave school and become sex workers in beaches or to work in the fishing industry to feed their families (Fay, 2008). In the Kenyan Lake Victoria Division of Nyangoma of Siaya County fishing is the key economic activity. Men fish while women process and sell it. Anyango and Menn (2010) noted that despite the capability of fishing to generate economic growth, it has failed to reduce poverty as many families in the area are poor.

High cash flow at the lake attracts many people to work in fishing industry causing them to have many sexual partners making sex a beach culture (Llewellyn, 2006). Sex for Fish is common on shores. It is called ‘Jaboya’ in Luo since it is where women have sex with fishers in exchange for fish to sell. Sex for fish is caused by the high demand for fish and decrease in fish catch causing women to compete for it. Fishers use fish to lure women and school girls into sex. The illiterate and poor women like singles, widows, divorced and young women are vulnerable to Jaboya. They befriend fishermen to get fish since they lack money to buy fish to sell or to fend for their families (Manyala & Gitonga, 2008). Women who befriend fishers get fish during low season when fish is scarce. Older women go to the lake with their nubile daughters to induce fishers to give them fish as they do not like having sex with women who are their mothers’ age mates. Thus, many women contract HIV, die and leave behind orphans. Poverty cause many girls to become sex workers on beaches to get money or to fall prey to ‘Jaboya’ forcing them to befriend fishers to give them free fish for trade or to fend for themselves and their siblings.

Statistics shows that although Gross Enrollment Rate (GER) of girls nationally rose from 27.4 % to 33.3% between 2003 and 2007, it was lower than that of boys during the same period (MoE, 2008). Girls’ enrollment in Nyanza province rose by 2% from 28.6% in 2003 to 30.6% in 2007. It was still lower than that of boys who rose by 12% during the same period. Notably, by 2011 girls’ enrollment was 41.3% in Nyanza Province but boys was 50.2% (Republic of Kenya, 2012). In Bondo district GER of girls dropped from 26.1% in 2003 to 24.4% by 2007 while that of boys rose from 36.5% in 2003 to 54.2% in 2007 implying that it was about half that of boys. The GER of girls in Nyangoma Division dropped from 26.6% in 2005 to 16.7% in 2009 and was less than a third of that of boys during the same period in the Division. The Division also had the lowest girls’ enrollment (37.0%) among all the 5 Divisions in Bondo District. Rarieda Division recorded the highest GER of girls which was nearly double that of the girls in Nyangoma Division. Based on this trend in gender gap, the researcher assumed that while fisheries was the main economic activity around Lake Victoria in Kenya, the industry attracted many school children to engage in fishing related activities in the Division. Hence it might be that the industry had the potential to negatively affect girls’ participation thus keeping more girls than boys away from school. This pattern had persisted even with the introduction of the Free Secondary School Education. It was against this background that the study sought to investigate if there was any link between fisheries around Lake Victoria and girls’ participation secondary schools of Nyangoma Division.
1.2 Purpose of the Study

The aim of this study was to find out the factors that contribute to the high drop out of Girls in the Secondary Schools around Lake Victoria and specifically in Nyangoma Division of Siaya County in Kenya.

1.3 Objectives of the Study

i. To examine the dropout rate of girls in the secondary schools of Nyangoma Division in Siaya County.

ii. To find out if fishing contribute to the high dropout rate of secondary school girls in Nyangoma Division of Siaya County.

iii. To identify other factors that contribute to the high dropout rate of secondary schools girls in Nyangoma Division in Siaya County.

1.4 Research Hypothesis

Based on the second objective of this study the single null hypothesis which was formulated to be tested stated that: “There was no significant relationship between fishing and drop out of girls in the secondary schools of Nyangoma Division in Siaya County in Kenya”.

1.5 Significance of the Study

The study would sensitize all the stakeholders in the education sector on how fishing relates to dropout of girls in secondary schools. This would enable the stakeholders in the Division to adapt programs that would support the education of girls and hence retain them in school like boys. The study would be a source of reference to future researchers who might study further on fishing and its effects on the education of girls in other parts of the world.

1.6 Scope of the Study

This study focused on drop out as the main areas of concern in the concept of participation of girls in secondary schools of Nyangoma Division. Only the students and teachers in session in their schools by the time of the study were involved. Those who were absent were not included in the sample.

1.7 Limitations of the Study

The financial and other logistic constraints like limited time which were beyond the researcher's control dictated the choice of the area where the study was to be conducted.

2. LITERATURE REVIEW

2.1 Fishing and Drop out of Girls in Secondary Schools

The International Labour Organization’s (ILO) Convention No. 182 on the Worst Forms of Child Labour (1999) defined child labour as “any work that can harm the health, safety or morals of anybody below 18 years”. Also, according to the Bureau of International Labour Affairs, BILA (2003, p.16), Commercial Sexual Exploitation of Children (CSEC) is “the inducement or coercion of a child to engage in unlawful sexual activity like prostitution or pornography”. As per these definitions, child labour is common in the fishing regions with “sex for fish” being the CSEC used by adults to get fish. Though child labour is rampant along the beaches, it has not received the attention it deserves since many child-headed families engage in fishing related activities at the expense of their studies due to poverty (Christopha & Sonja, 2007, p.875-899). Fishing absorb 57.6% of children worldwide (U.S. Embassy, 2002). Vegard (2006, p.14) noted that “fishing contributes to 2.5% of child labour in Ghana with 87.2% of them being boys”. There are also regional variations in child labour in fishing in Ghana with over 20,000 (8.3% of all child labour) working in the Volta region. Others are the Eastern and the Accra regions with 15,833 and 8,150 child workers (Vegard, 2006). The 4 categories of fisheries-related works that children do are: fishing and foraging for subsistence; small-scale fish vending; working in shore-seine crew; and offering services to crews during operations on a beach (Nieuwenhuys, 1994).
Women and girls’ involvement in fisheries is significant since they comprise 46% of the labour force in pre- and post-harvesting fisheries works (FAO, WorldFish & World Bank, 2008). Their involvement is even higher if aquaculture and gleaning are included. But this formal enumeration does not reveal the informal ways in which women and girls enhance livelihoods in fishing regions. They support and complement men’s fishing activities in household livelihood portfolios by managing the family while men are away at sea and also by engaging in pre- and post-harvest fisheries tasks like processing or trading that are remunerated with wages or profit, the remittances from which subsidize men’s fishing effort (SDF & FSF, 2009). Most often women and girls’ fisheries-related activities which contribute to the well-being of households bring lower returns to women relative to that of men (Weeratunge & Snyder, 2009).

Fish processing and marketing employ over 50 million people (FAO, 2004). In Bangladesh for example, there is a high incidence of child labour in fish processing industries with children contributing up to 36% of the labour force (Whitehead & Hashim, 2005). Paris and Chi (2005) noted that ladies play a crucial role in fish processing and marketing thus ensuring food security in the society. Fish is processed by washing, splitting, filleting, sticking and gutting but preserved by sun drying, smoking, freezing, chilling and brining (Akinola & Akinyemi, 2006). The most common methods are smoking and drying since most fishing communities do not have electricity to freeze the fish in times of excess. Nite and Clare (2003, p.46) noted that “women living on the shores of Lake Victoria make a living from smoking fish”. Thus, they send girls to fetch fire wood for smoking the fish more so in seasons of excess harvests. Some girls are also involved indirectly in fisheries by undertaking domestic tasks like caring of siblings on behalf of their mothers. This implies that the fish processing industries enhances the exploitation of girls and denies them the chance to education by making them not to attend school regularly. The scope for attending school varies by gender with the percentage of unschooled boys among fishers being 20% and the corresponding value for girls being 51% (Maddox, 2006).

As such, illiteracy is prevalent in many African fishing regions with women and girls having the worst educational levels than men (Vegard, 2006). Introduction to the fishery economic gains makes them to leave or not to complete school making fishers only to attain primary education (Lwenya & Abila, 2001). By occupation, boat crews have lower educational levels than boat owners and fish traders since 70% of boat owners; 62% of boat crew and 52% of women finish primary school (LVFO, 2008). The crews have few livelihood options; they leave school early to work on the beach; and they have few skills and resources with which to seek alternatives jobs (Nite & Clare, 2003). Vegard (2006, p.4) argued that “apart from being involved directly in fishery activities on beaches, girls also substitute their mothers’ who are fishmongers in their domestic duties”. Under the definition adopted by ILO (2004), domestic duties are not classified as child labour though they involve long working hours and denial of educational opportunity. Thus, child labour contributes to the low levels of education among fishers which in turn hinders women and men from managing fishery effectively and also from joining alternative employment outside fishery (Legal Notice No. 18, 2001).

Nite and Clare (2003) argued that women have few livelihood alternatives due to their limited education, lack of access to resources, and early marriage (compared to fishermen when they are about 15 years old). This makes women and girls to engage in transactional sex to obtain fish for two reasons (Bene & Merten, 2008). Firstly they are poor hence are compelled to offer sex in exchange for fish and secondly to reduce the transactional costs of trade. “Sex for fish” is also caused by scarcity of fish and increased demand of fish in markets (Kronen & Vunisea, 2009). “Sex for fish” helps ladies to get fish in a competitive arena due to the challenges they face (Loevinsohn & Gillespie, 2003). They scramble and shout on beaches to win the attention of fishermen who control if they will buy fish or not. Women sleep with fishers to get fish for trade since fishing is their only economic activity (Jaboya Project, 2008). But since most of them are old, they use their stylishly dressed nubile daughters or relatives to help them get fish without shouting by sleeping with any man who give the best deal. Thus, men wield power by controlling access to fish which women need for trade. Fishermen also lure girls by giving them money or fish (Otieno, 2010). For example many secondary school girls in Muhuru Bay in Kenya do not attend school due to poverty. These girls end up being married to fishermen or end up having sex with fishermen to earn a living (WISER, 2008). Also the girls in Mbita, Nyatike and Homa Bay in Kenya dropout due to the same reason (Reject, 2009). The women and girls have weak negotiating power about safe sexual practices with the fishermen. This puts both the women / girls engaged in processing and trading as well as the men engaged in fishing at risk of contracting HIV. This concurs with Musumali and Wishart (2009) who noted that a number of people employed in the fisheries sector die due to HIV/AIDS leaving behind many orphaned children. The children, more so girls end up not attending school.

Thus, while this literature clearly shows that girls’ education tend to be more affected by fisheries, it is not clear whether the reasons established in the literature also apply to Kenyan girls in Nyangoma Division of Siaya County in a manner that is statistically significant to warrant serious concern. Also, when the girls in the Division portray the highest dropout rates as compared to boys, it was important to know whether such differences are significant. This study therefore addressed this knowledge gap by investigating if there was any significant
relationship between fishing and drop out of girls in the secondary schools of Nyangoma Division. The study also sought to determine the other contributors to the high dropout rate of girls in the Division.

3. RESEARCH DESIGN AND METHODOLOGY

3.1 Research Design

Descriptive survey research design was used in this study to establish the contribution of fishing around Lake Victoria on the high drop out of girls in the secondary schools of Nyangoma Division in Siaya County in Kenya. This was because according to Orodho (2003), this design supports both quantitative and qualitative methodologies which were employed in this study.

3.2 Area of the Study

The study was conducted in Nyangoma Division of Siaya County in Kenya. The Division is about 100 km south-west of the city of Kisumu and off the Kisumu-Busia highway but along the Kisumu-Usenge road. Purposive sampling was used to select the Division as the area where the study will be conducted. This was because the area has been recorded the highest dropout rate of girls in secondary schools among the 5 Divisions in Bondo District of Siaya County since 2005.

3.3 Variables

The independent variable which was studied in this research study was fishing and the dependent variable was dropout of girls in secondary schools of Nyangoma Division. The study was to establish if the independent variable has any effect on the dependent variable.

3.4 Sample Size and Sampling Techniques

The participants involved in the study were principals; teachers; and students of the 4 secondary schools selected in the Division plus Beach Management Units (BMUs) Officers.

The Division has 1593 students in secondary schools of which boys were 1083 (68%) and girls were 510 (32%). Of these students, 10% were selected to get the sample population of 159 students that is 108 boys and 51 girls. The Division also had 56 Teachers with 16 teachers (29%) being female and 40 teacher (71%) being males. Stratified random sampling technique was used to select 16 teachers that is, 6 females and 10 males out of the 56 teachers in the Division. The 4 principals of the 4 secondary schools selected that is, 1 female and 3 male, were involved in the study as they occupy the top administrative positions in their schools. The opinions of 2 Beach Management Unit (BMU) officers were also sought.

3.5 Research Instruments

The study used questionnaires, interview guide, and non-participant observations as the major research tools to collect data. Questionnaires were administered to students and teachers while principals and BMU officer were interviewed.

3.6 Pilot Study

Piloting was done in 2 schools in Usigu Division, namely Jusa and Got Agulu secondary schools. Usigu Division was used because this Division was adjacent to the area where the study was conducted. Piloting involved 40 Students, 4 Teachers, 2 Principals and one BMU officer. The questionnaire and interview guide were piloted to confirm if the items would solicit the required information. Pre-testing was also done to ensure that the instruments were clear; unbiased; that they were interpreted in the same way by all the subjects; and measure what they were supposed to measure.
3.7 Validity and Reliability of Instruments

Validity of the content of the tool used in the study was improved by seeking the help of experts in the department of Educational Foundations of Kisii University for the tool measures what it is supposed to measure. Reliability was tested using split-half technique. The responses were split into even and odd numbers. The 2 halves were correlated separately and a correlation of 0.54 was obtained. Since this correlation gave the reliability of each half of the test Spearman-Brown prophecy correlation formula was used to estimate the reliability of the whole test. A reliability of 0.7 was obtained for the research instrument using the expression:

\[ P_{xx''} = \frac{2P_{xx'} / (1+P_{xx'})}{(1+P_{xx'})} \]

Where \( P_{xx''} \) was the reliability coefficient for the whole test and \( P_{xx'} \) was the correlation between the 2 halves. Since \( P_{xx''} \) was greater than 0.6, then the instrument was considered reliable for Kothari (2004) confirms that a reliability of 0.6 is adequate.

3.8 Ethical Considerations

In order to respect and protect the participants and the research sites, the researchers observed the following ethical issues:-

a) Protected the physical and psychological anonymity of the respondents by using pseudonyms to keep their identity anonymous. Pseudonyms were also used for the sampled secondary schools to further protect the anonymity of the respondents and their institutions.

b) Assured the respondents of confidentiality of the information they gave.

c) Sought the consent of the participants in order to participate in the study voluntarily.

d) Sought the consent of the participants in the study was to use their photographs in the study.

e) Protected the anonymity of the subjects by camouflaging their pictures to keep their identity anonymous. This was done by shading their faces black.

3.9 Data Analysis

Qualitative data collected from open-ended questions in the questionnaires and interviews was analyzed into key themes based on the objectives of the study. The qualitative data was presented in textual form. Narrative passages were used to convey the findings. Quantitative data got from questionnaires was analyzed descriptively using Statistical Package for Social Sciences version 16.0. It was presented in form of descriptive statistic. Statistics was presented in numeral, graphical and tabular forms like pie charts, graphs and tables. Chi-Square statistics was used to find out the relationship between fishing and drop out of girls.

4. RESULTS AND DISCUSSION

4.1 Drop Out of Girls in Secondary Schools in Nyangoma Division

The first objective of this study intended to examine the dropout rate of girls in the secondary schools of Nyangoma Division in Siaya County. To address this first objective, the opinions of the respondents on the question of whether girls in their schools drop out of school were sought. Table 4.1 shows the responses of the respondents. The results showed that 84% of the students agreed that girls drop out of school and 16% of them refused. Further, 15 teachers representing 94% responded with a YES while only 1 teacher responded with a NO. The teachers’ responses indicated that they agreed with the fact that girls dropped out of school. This finding showed that the girls’ drop out was an issue that was worth addressing. This was because the high dropout rate denies girls an opportunity to access education on an equal footing with boys.

<table>
<thead>
<tr>
<th>Do girls drop out of school in this school?</th>
<th>Students (N=159)</th>
<th>Teachers (N=16)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>Yes</td>
<td>133</td>
<td>83.6</td>
</tr>
<tr>
<td>No</td>
<td>26</td>
<td>16.4</td>
</tr>
<tr>
<td>Total</td>
<td>159</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**SOURCE:** Field data, September 2013
When asked to comment about the dropout rate of girls as compared to boys, half (52%) of the students said it was high, nearly a third (30%) of them said it was moderate and over an eighth (18%) said it was low. These responses were highlighted in Table 4.2 which also shows that half (50%) of teachers said that the dropout rate was high, a third (31%) said it was moderate and below a quarter (19%) said that it was low.

<table>
<thead>
<tr>
<th>Drop rate of girls compared to boys</th>
<th>Students (N=159)</th>
<th>Teachers (N=16)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>High</td>
<td>83</td>
<td>52.2</td>
</tr>
<tr>
<td>Moderate</td>
<td>47</td>
<td>29.6</td>
</tr>
<tr>
<td>Low</td>
<td>29</td>
<td>18.2</td>
</tr>
<tr>
<td>Total</td>
<td>159</td>
<td>100.0</td>
</tr>
</tbody>
</table>

SOURCE: Field data, September 2013

These finding revealed that the subjects saw the dropout rate of girls in the Division to be higher than that of boys. The findings imply that the high dropout rate is a big threat to the secondary education of girls in the Division and hence it was an issue worth addressing by all stakeholders. This was because it denied girls an opportunity to access education on an equal footing with boys. The finding in Table 4.2 was consistent with the information got from the documentary analysis of the records in the schools selected for the study between 2009 and 2013 as shown in Table 4.3.

<table>
<thead>
<tr>
<th>School</th>
<th>Gender</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Boys' Boarding</td>
<td>Boys</td>
<td>0.4%</td>
<td>0.7%</td>
<td>0.8%</td>
<td>0.3%</td>
<td>0.4%</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Eastern Secondary School</td>
<td>Boys</td>
<td>0.4%</td>
<td>0.2%</td>
<td>0.5%</td>
<td>0.8%</td>
<td>0.4%</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>0.9%</td>
<td>1.3%</td>
<td>1.5%</td>
<td>1.8%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Central Girls' Boarding</td>
<td>Boys</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>0.4%</td>
<td>0.6%</td>
<td>0.6%</td>
<td>0.9%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Southern Secondary School</td>
<td>Boys</td>
<td>0.5%</td>
<td>1.0%</td>
<td>0.2%</td>
<td>1.5%</td>
<td>0.5%</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>0.8%</td>
<td>1.0%</td>
<td>1.3%</td>
<td>0.5%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

SOURCE: School Registers, September 2013

The results in Table 4.3 showed that girls’ drop out was higher than that of boys. It was clear that more girls drop out at forms 3 and 4 than at forms 1 and 2. The data in Tables 4.2 and 4.3 shows that girls’ drop out in the secondary schools of the Division was still a serious issue that needs both immediate and long-term remedial actions. This data on the high drop out of girls from schools as compared to boys between the years 2009 and 2013 balances with the views of a principal who was asked during an interview to comment on the dropout patterns of boys and girls in the school for the last 5 years. The principal said: “…The dropout of girls was and has been generally higher than that of boys in this school…” (Mr. Opiyo* Principal, Southern Secondary School: September23, 2013).

4.2 Fishing and Drop Out of Girls in Secondary Schools

This section discusses on information about the contribution of fishing on the dropout rate of girls in secondary school in Nyangoma Division of Siaya County, in an attempt to examine the second research objective. The ultimate aim was to test the third null hypothesis which stated that “there was no significant relationship between fishing and girls’ drop out in secondary schools”. In order to establish how fishing relates to drop out of girls, the informants were asked to state whether fishing around Lake Victoria lures girls out of secondary schools thus causing them to leave / dropout of school in the Division. Table 4.4 below illustrated the responses of students and teachers. The Table highlights that over a third (36%) of the students confirmed that fishing led to high girls’ dropout in the Division while approximately two thirds (64%) of them said that it does not. It can also be observed from the Table that out of the 16 teachers involved in the study, a quarter (25%) of them said YES while three quarters (75%) of them said NO.
In order to establish the level of significant between fishing and the dropping out of girls, the null hypothesis (H₀₁) formulated was tested. Chi-Square statistics tests whose outcomes are shown in Tables 4.5 and 4.6 below were used to determine this relationship.

### Table 4.5: Chi-Square Tests from Students’ Questionnaires

<table>
<thead>
<tr>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square&lt;sup&gt;a&lt;/sup&gt;</td>
<td>12.736</td>
<td>1</td>
</tr>
</tbody>
</table>

<sup>a</sup> 0 cells (.0%) have expected frequencies less than 5. Minimum expected cell frequency is 79.5

### Table 4.6: Chi-Square Tests from Teachers’ Questionnaires

<table>
<thead>
<tr>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4.000</td>
<td>1</td>
</tr>
</tbody>
</table>

<sup>a</sup> 0 cells (.0%) have expected frequencies less than 5. Minimum expected cell frequency is 8.0

The data got from questionnaires administered to students and teachers was used to calculate the Chi-Square values for the relationship between fishing and girls’ drop out in secondary schools as shown in Tables 4.5 and 4.6 respectively. The Chi-Square Test Statistics value got from Table 4.5 was 12.736 and its level of significance was .000. Further, the Chi-Square value got from Table 4.6 was 4.000 and its p-value was .002. Since the p-value (.000) got from Table 4.5 was smaller than α = 0.05 level, then it was unlikely that fishing and girls’ drop out in secondary schools were independent. The same applied to Table 4.6 where the significance level (.002) was less than α =0.05. These findings did not agree with the null hypothesis (H₀₁) stated. Therefore, the rejection of this null hypothesis implied that the alternative hypothesis was true. Hence, it was generalized that there was a significant relationship between fishing and dropout of girls in the secondary schools of Nyangoma Division.

### 4.3 Other Factors Contributing to High Dropout Rate of Girls in Secondary School

The final objective of this study was to identify other factors that contribute to the high dropout rate of secondary schools girls in Nyangoma Division. This objective was addressed by asking the respondents to state any other reason other than fishing which they thought caused many girls to continue dropping out of secondary schools in Nyangoma Division. The prime factor which was indicated by a number of the informants was poverty. This finding was in concordance with a study by Rono (1990) who concluded that teachers perceived the leading cause of drop-out to be parental poverty. Also, Sifuna (2006) indicated that poverty made some parents to permit their children to drop-out of school in favour of employment. The weak economic power of a number of parents in fishing regions makes them unable to support the education of their children with girls being the most affect. This was because most girls came from poor families which cannot afford to pay their school fees or provide their basic needs like sanitary towels. This makes the learning process of many girls difficult and hence they opt to drop out of school. This reason was confirmed by a principal who reported that “…Poverty plays a great role in the high drop out of girls in education since it led to lack of school fees…” (Mr. Ngeta* Principal, Eastern Secondary School: September 15, 2013).

Further, Mr. Otieno* the Principal of Western Secondary School said:

…Fishing was not the prime cause of girls dropping out in schools. It only affects them indirectly. Poverty was the main cause. Most girls come from poor families which cannot provide their basic need like sanitary towels. This makes them to be enticed and lured easily by fishers who get a lot of cash daily from fishing. The girls also go to the lake shores to befriend fishermen or engage in commercial sex to get money to meet their basic needs. Other girls seek employment in the nearby hotels and bars along the lake shores to get money. This in turn leads to teenage pregnancies and early marriages among the girls… (Mr. Otieno* Principal, Western Secondary School: September 13, 2013).
These views were similar to a response given by a young Form three girl from Southern Secondary School. She said:

… When I joined Form one, a harambee (fund raising) was held to raise my fees. I then dropped out of school when I was in Form two due to lack of fees. I then got a well-wisher who is currently paying my fees… (Girl Student, Southern Secondary School: September 23, 2013).

Likewise, this response concurred with the sentiments of a young Form four girl at Central Girls’ Secondary School who had exited school in Form three. She explains:

…I used to be miss school because my mother did not have money…I did not go to school until she get school fees. It is until my elder brother got a job and started to pay my school fees that I started attending school regularly… (Girl Student, Central Girls’ Boarding Secondary School: September 21, 2013).

A teacher at the same school said:

…Girls from poor families and those who were orphaned by HIV / AIDS and natural attritions seek support for their schooling from a sexual partner. Others engage in commercial sex to get money to meet their basic needs… (Mrs. Akoth* Teacher, Central Girls’ Boarding Secondary School: September 21, 2013).

The still-photographs in Figure 4.1 taken at Kamariga Beach give a reflection of the economic status of most families among fishers. The high poverty level was seen in the quality of houses in which most families live in. This was further not in line with the Sustainable Development Goal which requires nations to eradicate extreme poverty and hunger from their countries.

![Figure 4.1: Poverty Level reflected by the Poor Quality of Houses in Fishing Regions](image)

The other reasons cited by the informants included child labour and enticing fishing economic activity leading to easily available daily cash; lack of parental support since parents believe that no benefit accrues from educating girls; lack of sanitary facilities; pre-mature sex leading to early pregnancies and early marriages; lack of many ladies who are role model in the lake community; poor academic performance in school; and negative peer influence from fellow girls who dropped out of school. All these reasons imply that the learning environment around the lake region was not conducive to support the education of girls. This was in line with the view of Byrnes (2001) who said that a student encountering learning problems had a difficult time in concentrating and was easily distracted. These factors raised by the informants shows that the success of the education sector in curbing the dropping out of girls from secondary schools depend on the cooperation of various stakeholders in education like parents teachers, students, the government, the community, international and local organizations, among others.
5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

From the first objective, the study revealed that the dropout rate of girls in Nyangoma Division was higher than that of boys. The study therefore concluded based on the second objective of the study that there was a significant relationship between fishing and high drop out of girls in the secondary schools of the Division. Finally, other than fishing, the study also cited the following as other factors that contribute to the high drop out of school girls in the Division: poverty; child labour; lack of parental; lack of sanitary facilities; early pregnancies and early marriages; lack of role model ladies; poor academic performance; and negative peer influence from girls who dropped out of school.

5.2 Recommendations

The two kinds of recommendations that were generated are:

5.2.1 Need for Action

This study recommends that the Government of Kenya through the Ministry of Education should organize workshops / insets for teachers teaching in lake regions to equip them with skills on guiding. This would enable them to counsel and advise the girls in their schools effectively. Further, the government and parents should provide for the basic needs of the girls in fishing regions like sanitary towels, better sanitation and clean water to enable them not to continue dropping out of secondary schools.

5.2.2 Suggestions for Further Research

Conducting a similar study but on the link between fishing industry around Lake Victoria and participation of boys in secondary schools.

REFERENCES


FAO , WorldFish Center and World Bank (2008). Small-scale capture fisheries – A global overview with emphasis on developing countries: a preliminary report of the Big Numbers Project. FAO and WorldFish Center, Rome & Penang.


